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| APPLICATION NO.                                               | FILING DATE     | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.    | CONFIRMATION NO. |
|---------------------------------------------------------------|-----------------|----------------------|------------------------|------------------|
| 09/623,928                                                    | 09/08/2000      | Hannu H. Kari        | 796.366USW1            | 1849             |
| 32294 7                                                       | 590 01/30/2004  |                      | EXAM                   | INER             |
| *                                                             | NDERS & DEMPSEY | PRIETO, I            | PRIETO, BEATRIZ        |                  |
| 14TH FLOOR<br>8000 TOWERS CRESCENT<br>TYSONS CORNER, VA 22182 |                 |                      | ART UNIT               | PAPER NUMBER     |
|                                                               |                 |                      | 2142                   | 14               |
|                                                               |                 |                      | DATE MAILED: 01/30/200 | 1 1              |

Please find below and/or attached an Office communication concerning this application or proceeding.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Application No.                                                                                                                                                                                      | Applicant(s)                                                                               | preg.                     |  |  |  |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|---------------------------|--|--|--|--|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 09/623,928                                                                                                                                                                                           | KARI ET AL.                                                                                |                           |  |  |  |  |
| Office Action Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Examiner                                                                                                                                                                                             | Art Unit                                                                                   |                           |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | B. Prieto                                                                                                                                                                                            | 2142                                                                                       |                           |  |  |  |  |
| The MAILING DATE of this communication app<br>Period for Reply                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | pears on the cover sheet with the c                                                                                                                                                                  | orrespondence addre                                                                        | iss                       |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPL THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.1 after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a repl - If NO period for reply is specified above, the maximum statutory period  - Failure to reply within the set or extended period for reply will, by statute - Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).  Status | 36(a). In no event, however, may a reply be tin<br>y within the statutory minimum of thirty (30) day<br>will apply and will expire SIX (6) MONTHS from<br>, cause the application to become ABANDONE | nely filed s will be considered timely. the mailing date of this comm D (35 U.S.C. § 133). | nunication.               |  |  |  |  |
| 1) Responsive to communication(s) filed on <u>08 S</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | eptember 2000.                                                                                                                                                                                       |                                                                                            |                           |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | action is non-final.                                                                                                                                                                                 |                                                                                            |                           |  |  |  |  |
| 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                      |                                                                                            |                           |  |  |  |  |
| Disposition of Claims                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                      |                                                                                            |                           |  |  |  |  |
| 4) Claim(s) 32-61 is/are pending in the application                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>n.</b>                                                                                                                                                                                            |                                                                                            |                           |  |  |  |  |
| 4a) Of the above claim(s) is/are withdrawn from consideration.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                      |                                                                                            |                           |  |  |  |  |
| 5) Claim(s) is/are allowed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                      |                                                                                            |                           |  |  |  |  |
| 6)⊠ Claim(s) <u>32-61</u> is/are rejected.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                      |                                                                                            |                           |  |  |  |  |
| 7) Claim(s) is/are objected to.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                      |                                                                                            |                           |  |  |  |  |
| 8) Claim(s) are subject to restriction and/o                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 8) Claim(s) are subject to restriction and/or election requirement.                                                                                                                                  |                                                                                            |                           |  |  |  |  |
| Application Papers                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                      |                                                                                            |                           |  |  |  |  |
| 9) The specification is objected to by the Examine                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | er.                                                                                                                                                                                                  |                                                                                            |                           |  |  |  |  |
| 10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                      |                                                                                            |                           |  |  |  |  |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                      |                                                                                            |                           |  |  |  |  |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                      |                                                                                            |                           |  |  |  |  |
| 11) ☐ The oath or declaration is objected to by the E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | xaminer. Note the attached Office                                                                                                                                                                    | Action or form PTO                                                                         | -152.                     |  |  |  |  |
| Priority under 35 U.S.C. §§ 119 and 120                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | eron tree are provided to the company                                                                                                                                                                |                                                                                            |                           |  |  |  |  |
| 12)⊠ Acknowledgment is made of a claim for foreig<br>a)⊠ All b)⊡ Some * c)⊡ None of:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                      | a)-(d) or (f).                                                                             |                           |  |  |  |  |
| 1. Certified copies of the priority documents have been received.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                      |                                                                                            |                           |  |  |  |  |
| <ul> <li>2. Certified copies of the priority documents have been received in Application No.</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                      |                                                                                            |                           |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | application from the International Bureau (PCT Rule 17.2(a)).                                                                                                                                        |                                                                                            |                           |  |  |  |  |
| * See the attached detailed Office action for a list of the certified copies not received.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                      |                                                                                            |                           |  |  |  |  |
| 13) Acknowledgment is made of a claim for domest since a specific reference was included in the fit 37 CFR 1.78.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ic priority under 35 U.S.C. § 119( st sentence of the specification o                                                                                                                                | e) (to a provisional a<br>r in an Application Da                                           | pplication)<br>ata Sheet. |  |  |  |  |
| a) $\square$ The translation of the foreign language provisional application has been received.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                      |                                                                                            |                           |  |  |  |  |
| 14) Acknowledgment is made of a claim for domest reference was included in the first sentence of t                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ic priority under 35 U.S.C. §§ 120 in an Application or in an Application                                                                                                                            | on Data Sheet. 37 CF                                                                       | specific<br>FR 1.78.      |  |  |  |  |
| Attachment(s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                      |                                                                                            |                           |  |  |  |  |
| 1) X Notice of References Cited (PTO-892)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                      | (PTO-413) Paper No(s).                                                                     |                           |  |  |  |  |
| 2) X Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | · —                                                                                                                                                                                                  | Patent Application (PTO-1                                                                  | 52)                       |  |  |  |  |
| U.S. Patent and Trademark Office PTOL-326 (Rev. 11-03)  Office A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | action Summary                                                                                                                                                                                       | Part of Pa                                                                                 | per No. 14                |  |  |  |  |

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## **DETAILED ACTION**

- This communication is in response to application No. 09/623,928 filed 9/08/00, claims 32-61 are 1. remain pending and have been examined, as hereby set forth.
- Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). 2. The certified copy has been received and placed in filed.
- Claim 32 recites the clause limitation "which network includes" on the 2nd line; the clause "the 3. data transmission network" on the 4th line of the claim; and the clause "the data transmission traffic" on the 10th line of the claim. There is insufficient antecedent basis for this limitation in the claim. Applicant is urged to review further claims for similar or other deficiencies.
- The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis 4. for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 32-61 are rejected under 35 U.S.C. 102(e) as being anticipated by SPAUR et. al U.S. 5. Patent No. 6,122,514 (referred to as Spaur hereafter)

Regarding claim 32, Spaur teaches substantial features of the invention as claimed, teaching a system/method for routing a data transmission connection between mobile unit (terminal equipment) and a host site (col. 5/lines 28-43, col. 7/lines 5-9), which network includes at least two network channels, links or routes ("access points R1,R2,R3"), (channels 34a-n, col. 6/lines 30-48) for connection of the terminal equipment to the data transmission network, characterized in that

a requirement parameters ("criterion") for the choice of an access point is established (col. 2, lines 37-56, col. 4, lines 55-62);

the access points are analyzed and weighted ("evaluated") according to said criteria (col. 2, line 60-col. 3, line 44, col. 4, line 50-col. 5 line 6);

two channels, links or routes are chosen which meet said criteria (col. 2, line 60-col. 3, line 22, col. 4, line 58-62); and

the data ("data transmission traffic") is connected simultaneously through these two chosen access points (col. 6, lines 1-29, 49-64).

Regarding claim 33, the one access point meeting said criteria is chosen in the terminal equipment (col. 2, line 60-col. 3, line 22, col. 4, lines 58-62).

Regarding claim 34, the one access point meeting said criteria is chosen in an interconnecting exchange device "gateway" (col. 7, lines 19-20).

Regarding claim 35, one criterion is established for the choice of the transmission capacity of the data transmission of two chosen access points, (col. 2, lines 37-col. 3, line 22, col. 4, lines 55-65); the chosen access points are evaluated according to said criteria (col. 2, line 60-col. 3, line22, col. 4, line 58-62); the transmission capacity of each chosen access point is chosen according to the result of the evaluation (col. 7,lines 41-45, col. 2, line 60-col. 3, line22, col. 4, line 58-62), and the data transmission is delivered and transmitted ("proportioned") between the chosen access points in relation to the chosen transmission capacities (col. 6, lines 1-29, 49-64).

Regarding claim 36, the access points are estimated repeatedly ("constantly") (col. 20, lines 20-23).

Regarding claim 37, the access points are estimated at certain intervals of time (col. 20, lines 20-23).

Regarding claim 38, the access points are estimated by monitoring transmission parameters (monitoring see col. 9, lines 46-53) including the quality of the data transmission (quality of service see col. 8/lines 42-50, quality of the packet transfer see col. 2, lines 38-43).

Regarding claim 39, characterized in that the application (10, 12, 14 and 18 of Fig. 1) used in the terminal

equipment is given information ("reports") on the characteristics of the chosen access point (col. 5, lines 47-50).

Regarding claim 40, the functioning of the application is adapted according to the reported characteristics (col. 5, lines 47-60, adapt or change the application see col. 9, lines 7-20).

Regarding claim 41, the characteristics of the access point are reported to the user (col. 4, lines 37-49, col. 9, lines 30-34).

Regarding claim 42, one criterion is established from the application to be used in the terminal, which is given reports on the characteristics of the access point (col. 5/lines 47-50).

Regarding claim 43, the access point meeting said criteria is chosen for the ("individual") application enabling data transmission connected simultaneously through these two chosen access points (see chosen which meet said criteria col. 2, line 60-col. 3, line 22, col. 4, line 58-62, individual application see col. 4, lines 11-16).

Regarding claim 44, the access points one is wireless (col. 6, lines 30-48).

Regarding claim 45, this claim comprises limitations substantially the same as claim 32, discussed above, same rationale of rejection is applicable. Spaur further teaches

a criterion is established for the choice of the data transmission relaying capacity of at two channel, links or routes (col. 2, lines 38-43, 57-65, requirements include transmission relaying parameters e.g. bandwidth),

the access points are identified, analyzed, evaluated and weighted ("estimated") in accordance with the criteria (col. 2, lines 60-col. 3, line 44, col. 4, line 50-col. 5, line 6);

the relaying capacity of each access point is chosen according to the results of the estimation (col. 2, line 60-col. 3, line 22, col. 4, line 58-col. 5, line 6), and

the data ("transmission traffic") is delivered and transmitted ("proportioned") between the access points in relation to the chosen relaying capacities(col. 6, lines 1-29, 49-64).

Regarding claim 46, the access points are estimated according to the criteria by an application in the

terminal equipment (col. 2, lines 60-col. 3, line 44, col. 4, line 50-col. 5, line 6).

Regarding claim 47, the access points are estimated according to the criteria by an application in an interconnecting exchange device "gateway" (col. 7/lines 19-20).

Regarding claims 48-50 these claims are substantially the same as claims 36-38 discussed above same rationale of rejection is applicable.

Regarding claims 51-55, this claim is substantially the same as claims 39-42 and 44 respectively, discussed above same rationale of rejection is applicable.

Regarding claim 56, this claim comprises limitation(s) substantially the same as those above discussed on claims 32 and 45, same rationale of rejection is applicable. Prior art further teaches wherein the terminal equipment having router capabilities for delivering ("routing") the data transmission through one access point (addressing and delivering through selected channel see col. 6/lines 1-15) at a time (see col. 6, lines 1-29, 49-64).

Regarding claim 57, this claim is substantially the same as claim 44, discussed above same rationale of rejection is applicable.

Regarding claim 58, this claim comprises limitation(s) substantially the same as those discussed above on claims 32, 45 and 56, same rationale of rejection is applicable. Prior art further teaches an interconnecting exchange device ("gateway exchange") for routing the data transmission (col. 7, lines 19-25).

Regarding claim 59, this claim is substantially the same as claim 44 discussed above, same rationale of rejection is applicable.

Regarding claim 60, this claim comprises limitation(s) substantially the same as those discussed above on claims 32, 45, 56 or 58, same rationale of rejection is applicable.

Regarding claim 61, substantially the same as claim 44, same rationale of rejection is applicable.

#### Pertinent Prior Art

6. The following prior art made of record and not relied upon is considered pertinent to applicant's disclosure; pertinence is presented in accordance with MPEP§ 707.05. Copies of documents cited will be provided as set forth in MPEP§ 707.05(a):

# U.S. Patent No. 5,838,663 (Nov. 1998)

Elwalid et. al. teaches substantially the features of claim 1, including establishing a criterion for the selection of an path (access point) through a communication network and routing traffic through established virtual circuit paths. The criterion takes in account network links capacity. The selection of the path is based on the criterion, which select among a potential paths for communicating between devices. Selection process evaluates the paths according to said criterion choosing those that meet the criteria selecting a set of two path for each network device.

## U.S. 5,825,772 (Oct. 1998)

Dobbins et. al. teaches substantially the features of claim 1, selecting communication paths (access points) based on an established criteria, the criteria include metric characteristics parameters of the communication paths. The selected communication paths are based on evaluation that weights the metric parameters. Multiple equal-cost paths to a given destination may be chosen to provide load balancing (i.e., proportionate distribution of the traffic over the multiple paths equally) for concurrently establishing connection through selected communication paths.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prieto, B. whose telephone number is (703) 305-0750. The Examiner can normally be reached on Monday-Friday from 6:00 to 3:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's Supervisor, Jack B. Harvey can be reached on (703) 305-9705. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3800/4700.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks Washington, D.C. 20231

or faxed to the Central Fax Office:

(703) 872-9306, for Official communications and entry;

Or Telephone:

(703) 306-5631 for TC 2100 Customer Service Office.

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington VA, Fourth Floor (Receptionist), further ensuring that a receipt is provided stamped "TC 2100".

B. Prieto TC 2100 Patent Examiner

January 18, 2004